



Features

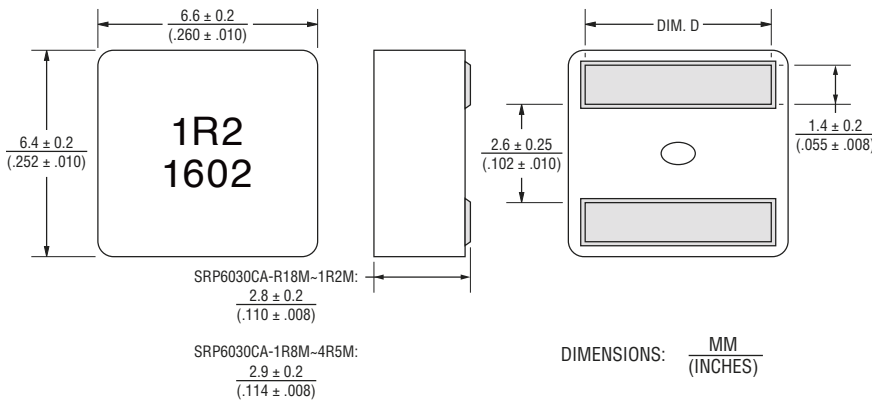
- Shielded construction
- Metal alloy powder core
- High saturation current
- Flat wire
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SRP6030CA Series – Shielded Power Inductors

Electrical Specifications @ 25 °C

| Bourns Part Number | Inductance @ 100 kHz / 0.1 V | | SRF (MHz) Typ. | DCR (mΩ) Typ. | DCR (mΩ) Max. | I rms (A) Typ. | | I sat (A) Typ. | D Dim. (mm) ± 0.3 mm |
|--------------------|------------------------------|--------|----------------|---------------|---------------|------------------|------------------|----------------|----------------------|
| | L (μH) | Tol. % | | | | 20 °C Temp. Rise | 40 °C Temp. Rise | | |
| SRP6030CA-R18M | 0.18 | ± 20 % | 143 | 1.6 | 1.75 | 24 | 32 | 40 | 5.3 |
| SRP6030CA-R33M | 0.33 | ± 20 % | 78 | 2.25 | 2.5 | 20 | 25 | 32 | 5.55 |
| SRP6030CA-R56M | 0.56 | ± 20 % | 70 | 3 | 3.31 | 17 | 22 | 29 | 5.3 |
| SRP6030CA-1R0M | 1.0 | ± 20 % | 52 | 5.5 | 6.05 | 13 | 18 | 23 | 5.2 |
| SRP6030CA-1R2M | 1.2 | ± 20 % | 47 | 6.7 | 7.4 | 12 | 16 | 22 | 5.15 |
| SRP6030CA-1R8M | 1.8 | ± 20 % | 33 | 9.2 | 10.2 | 10 | 14 | 18.2 | 5.1 |
| SRP6030CA-2R2M | 2.2 | ± 20 % | 29 | 11 | 12.2 | 7 | 10 | 15.9 | 5.05 |
| SRP6030CA-3R3M | 3.3 | ± 20 % | 25 | 18.8 | 20.8 | 6 | 8 | 12.2 | 5 |
| SRP6030CA-4R5M | 4.5 | ± 20 % | 20 | 23 | 25.3 | 5 | 7 | 10 | 5 |

Product Dimensions



General Specifications

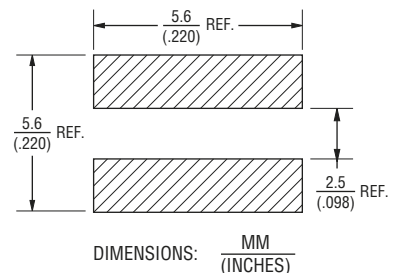
| | |
|---------------------------------|--|
| Operating Temperature |-55 °C to +155 °C (Temperature rise included) |
| Storage Temperature (Component) |-55 °C to +155 °C |
| Rated Current | Inductance drops 30 % at I _{sat} |
| Temperature Rise |20 or 40 °C at rated I _{rms} ¹ |
| MSL | 1 |
| ESD Classification (HBM) | N/A |

Note 1: Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

Materials

| | |
|-----------------|----------------------------------|
| Core | Metal alloy powder |
| Wire | Enameled copper |
| Terminal Finish | Sn |
| Packaging | 1000 pcs. per 13-inch reel |

Recommended Layout

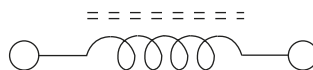


How to Order

SRP6030CA - 1R2M

Model _____
Value Code (see table) _____

Schematic



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WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

**Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

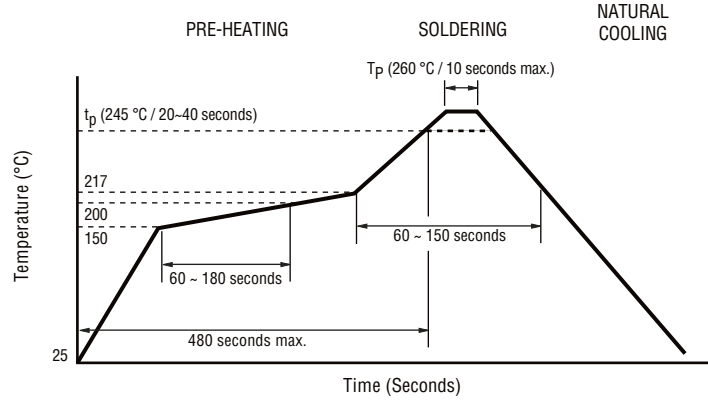
Specifications are subject to change without notice. Users should verify actual device performance in their specific applications.

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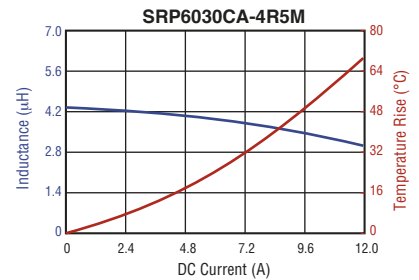
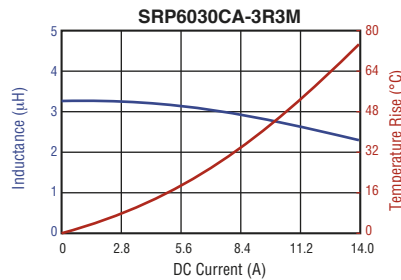
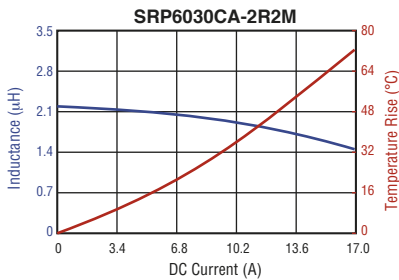
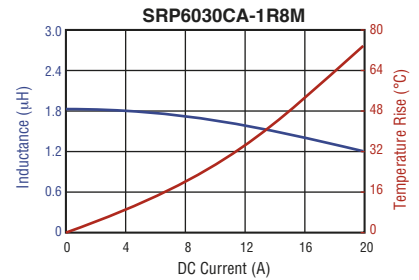
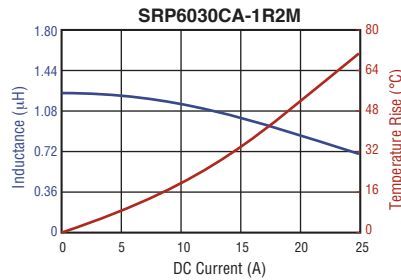
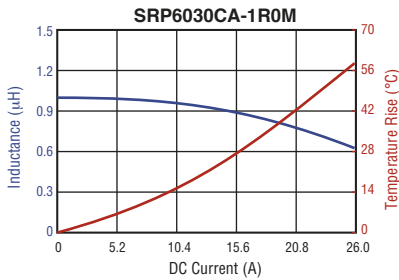
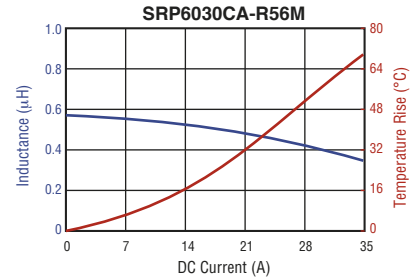
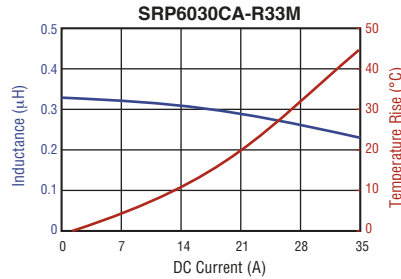
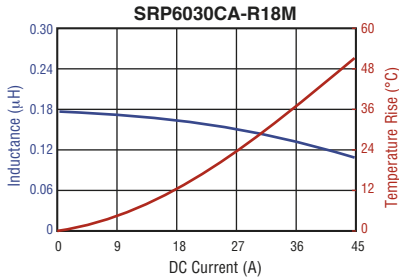
Soldering Profile



REFLOW TIMES: 3 MAX.

NOTE: 0.15 mm thick solder paste recommended.

L vs. I Charts



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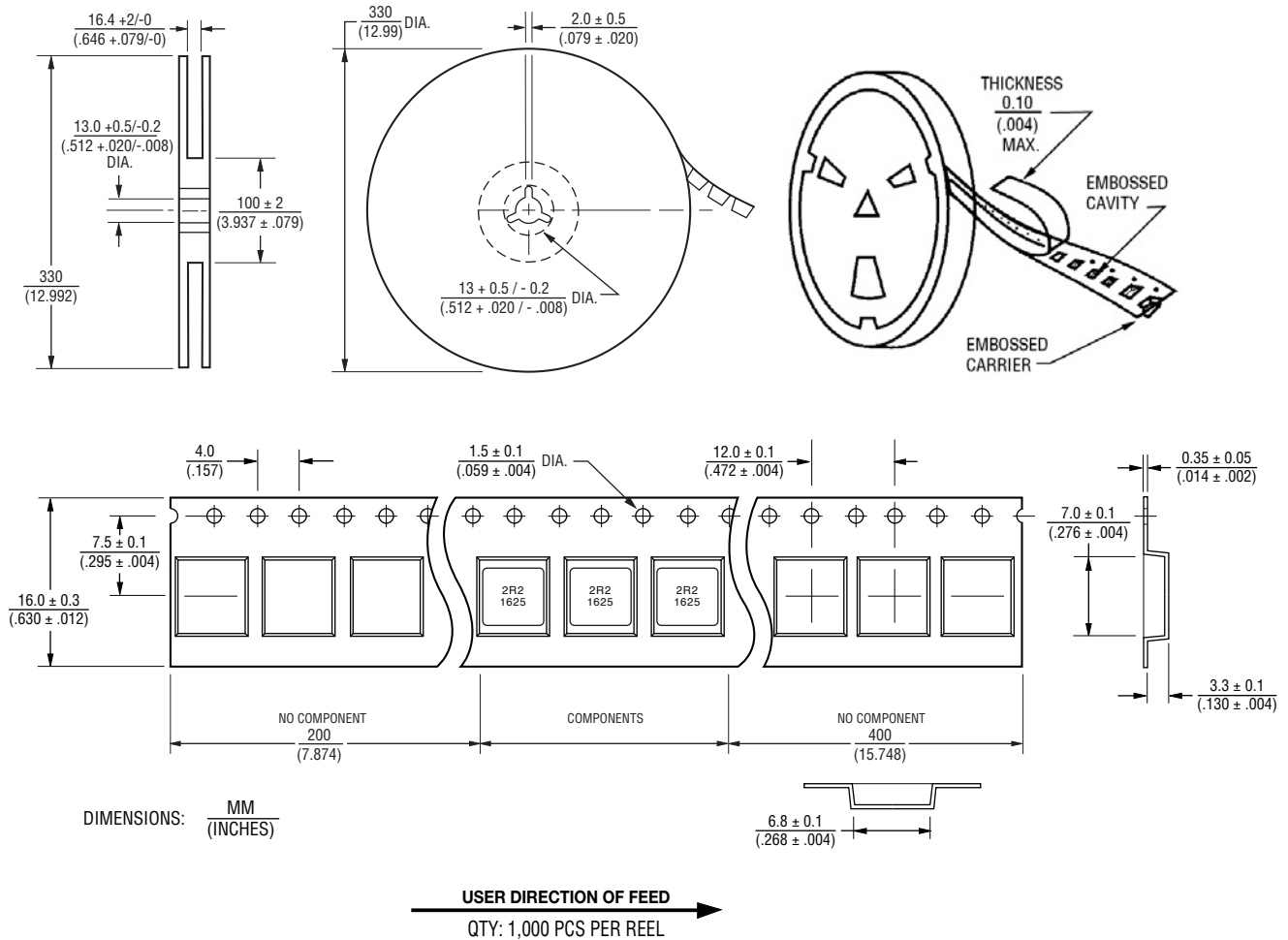
Users should verify actual device performance in their specific applications.

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Packaging Specifications



06/18

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